

**VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261**

October 1, 2002

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

Serial No.: 02-332A  
LR/DWL R0  
Docket Nos.: 50-280/281  
50-338/339  
License Nos.: DPR-32/37  
NPF-4/7

Gentlemen:

**VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION)**  
**SURRY AND NORTH ANNA POWER STATIONS UNITS 1 AND 2**  
**REQUEST FOR ADDITIONAL INFORMATION**  
**LICENSE RENEWAL APPLICATIONS**

By letter dated June 13, 2002 (Serial No. 02-332), Dominion provided information regarding RAI 4.3-6 that addressed the effects of environmentally assisted fatigue on the safety injection (SI) and charging line nozzles at Surry and North Anna. Based on several subsequent conversations during August 2002, the NRC staff requested supplemental information related to these responses concerning the Surry and North Anna license renewal applications (LRAs).

The June 13, 2002 information, which responded to RAI 4.3-6, documented acceptable cumulative usage factor (CUF) results for each of the SI and charging line nozzles. The approach and methodology used was consistent with current industry methods, including recent EPRI research on the topic of environmentally assisted fatigue. However, certain aspects of this calculational methodology have not been accepted for generic application by the NRC staff. Accordingly, certain scaling factors are not presently acceptable for use in the evaluation of the environmentally assisted fatigue effects on the SI and charging nozzles. Removal of these scaling factors from the adjusted CUF calculations results in an increase in the CUF values and, consequently, requires management of environmentally assisted fatigue of the SI and charging line nozzles.

The approach used for the management of environmentally assisted fatigue for the SI and charging line nozzles has several options available to ensure that the nozzles perform their intended function during the period of extended operation. Dominion identifies these options in the Surry and North Anna UFSAR Supplements (Section 18.3.2.4, Environmentally Assisted Fatigue). The revised UFSAR Supplement sections are provided in Attachments 1 and 2 of this letter for North Anna and Surry, respectively.

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Should you have any questions regarding this submittal, please contact Mr. J. E. Wroniewicz at (804) 273-2186.

Very truly yours,

A handwritten signature in black ink, appearing to read "L. N. Hartz", with a stylized, flowing script.

Leslie N. Hartz  
Vice President – Nuclear Engineering

Attachment

Commitments made in this letter: None

cc:

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COMMONWEALTH OF VIRGINIA     )  
  )  
COUNTY OF HENRICO            )

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Leslie N. Hartz who is Vice President – Nuclear Engineering of Virginia Electric and Power Company. She has affirmed before me that she is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of her knowledge and belief.

Acknowledged before me this 1<sup>st</sup> day of October, 2002.

My Commission Expires: 3-31-04.

Maggie McCune  
Notary Public

